## 1 1. (Original) A process for preparing oxetan-2-one of Formula I,

- 2 FORMULA I
- 3 comprising the steps of:

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4 a. reacting an aldehyde of Formula II

FORMULA II

6 with a metal enolate of Formula III

$$C_6H_1$$

FORMULA III

to give a diastereomeric mixture of trans-oxetan-2-one of Formula IV

FORMULA IV (SSS+SRR)

10		b. hydrolyzing the diastereomeric mixture of trans-oxetan-2-one of
11		Formula IV to form the compound of Formula I; and
12		c. separating of diastereomerically pure oxetan-2-ones of Formula I by
13		crystallization,
14		wherein R <sup>1</sup> is undecyl or 2Z,5Z-undecadienyl and R <sup>2</sup> is selected from the group
15		consisting of F, substituted or unsubstituted aryloxy, arylsulfanyl and heteroaryl,
16		and M is selected from the group consisting of a monovalent metal, a divalent
17		metal, a trivalent metal and a tetravalent metal.
1	2.	(Original) The process of claim 1, wherein R <sup>2</sup> is phenoxy or 1-benzotriazolyl and
2		M is lithium, MgBr, ZnCl or Ti(OR) <sub>3</sub> wherein R is alkyl.
1	3.	(Canceled)
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1	4.	(Canceled)
1	5.	(Original) The process of claim 1, wherein the reaction of the aldehyde of
2		Formula II with the metal enolate of Formula III is carried out at a temperature of
3		from about -120 °C to about -70 °C.
1	6.	(Canceled)
1	7.	(Original) The process of claim 1, wherein the reaction of the aldehyde of
2		Formula II with the metal enolate of Formula III is quenched by addition of an acid
3		or a salt solution and the compound of Formula IV is recovered by extraction.
1	8.	(Original) The process of claim 7, wherein the acid is hydrochloric acid and the
2		salt solution is ammonium chloride.
1	9.	(Original) The process of claim 1, wherein the hydrolysis of the diastereomeric
2		trans-oxetan-2-one of Formula IV is carried out in the presence of an acidic
3		catalyst and a polar solvent.

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- 1 10. (Original) The process of claim 9, wherein the acidic catalyst is selected from the
- group consisting of an acid, a salt of a weak base, an acidic ion-exchange resin and
- 3 acidic silica gel.
- 1 11. (Original) The process of claim 10, wherein the acid is hydrofluoric acid or
- 2 hydrochloric acid.
- 1 12. (Original) The process of claim 10, wherein the salt of a weak base is ammonium
- 2 fluoride or pyridinium-4-toluenesulphonate.
- 1 13. (Canceled)
- 1 14. (Canceled)
- 1 15. (Canceled)
- 1 16. (Canceled)
- 1 17. (Canceled)
- 1 18. (Canceled)
- 1 19. (Original) The process of claim 1, wherein the hydrolysis of the compound of
- Formula IV is carried out at a temperature from about -20 °C to about 120 °C.
- 1 20. (Canceled)
- 1 21. (Original) The process of claim 1, wherein the diastereomerically pure oxetan-2-
- ones of Formula I are separated by crystallization from an aliphatic hydrocarbon
- 3 solvent.
- 1 22. (Canceled)
- 1 23. (Original) The process of claim 1, wherein the diastereomerically pure
- 2 oxetan-2-ones of Formula I are separated by crystallization from a mixture of an
- 3 aliphatic hydrocarbon solvent and at least one of an aromatic hydrocarbon, an
- 4 ether, a chlorinated hydrocarbon, an ester, a ketone.

- 1 24. (Canceled)
- 2 25. (Original) A process for preparing a compound of Formula V

$$R^3$$
 NHR<sup>4</sup>  $C_6H_{13}$ 

FORMULA V

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- 4 comprising the steps of:
- 5 a. treating an oxetan-2-one of Formula I

$$R^{1}$$
 $H$ 
 $H$ 
 $C_{6}H_{13}$ 

- 6 FORMULA I
- 7 with an acid or acid anhydride of Formula VI

- FORMULA VI
- 9 or a mixed anhydride thereof, and dicyclohexylcarbodiimide;
- b. cleaving off R<sup>5</sup>; and

11 12		c. reacting with an alkanoylating agent having an R <sup>4</sup> group to introduce the group R <sup>4</sup> ,
13 14		wherein $R^1$ undecyl or 2Z,5Z-undecadienyl, $R^3$ is isobutyl or carbamoylmethyl, $R^4$ is formyl or acetyl, and $R^5$ is an amino protecting group.
15 16	26.	(Original) The process of claim 25, wherein R <sup>5</sup> is benzyloxycarbonyl or p-nitrobenzyloxycarbonyl.
1 2	27.	(Original) The process of claim 25, wherein the alkanoylating agent is an acid anhydride of R <sup>4</sup> -COOH or R <sup>4</sup> X wherein X is a halide.
1 2	28.	(Currently Amended) The process of claim 27 29, wherein the alkanoylating agent is formic acid anhydride, acetic anhydride, formyl halide or acetyl halide.
1	29.	(Canceled)
1	30.	(Canceled)
1 2 3	31.	(Original) The process of claim 25, wherein the treatment of oxetan-2-one of Formula I with the acid of Formula VI is performed in the presence of dimethylaminopyridine.
1 2 3	32.	(Original) The process of claim 25, wherein the treatment of oxetan-2-one of Formula I with the acid of Formula VI is performed at a temperature from about -20 °C to about 40 °C.
1	33.	(Canceled)
1	34.	(Original) A compound prepared by a process comprising the steps of:
2		a. reacting an aldehyde of Formula II

## **FORMULA II**

4 with a metal enolate of Formula III

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## 5 FORMULA III

to give a diastereomeric mixture of trans-oxetan-2-one of Formula IV

## FORMULA IV (SSS+SRR)

- b. hydrolyzing the diastereomeric mixture of trans-oxetan-2-one of Formula IV to form the compound of Formula I; and
- c. separating of diastereomerically pure oxetan-2-ones of Formula I by crystallization,

wherein R<sup>1</sup> is undecyl or 2Z,5Z-undecadienyl and R<sup>2</sup> is selected from the group consisting of F, substituted or unsubstituted aryloxy, arylsulfanyl and heteroaryl, and M is selected from the group consisting of a monovalent metal, a divalent metal, a trivalent metal and a tetravalent metal.